

Claims

1. A soldering flux comprising 0.1 - 70 mass percent of an organic acid, 5 - 40 mass percent of a solvent, and a total of 10 - 95 mass percent of a thermosetting resin and a curing agent, wherein during soldering of a component, the flux exhibits a function of securing the component by the thermosetting resin.

2. A soldering flux as described in claim 1 wherein the organic acid is one or more classes selected from the group consisting of rosins, carboxylic acids and carboxylic acid anhydrides.

3. A soldering flux as described in claim 2 wherein the organic acid contains a rosin as at least a portion thereof.

4. A soldering flux as described in claim 1 wherein the thermosetting resin is an epoxy resin.

5. A soldering flux as described in claim 4 wherein the thermosetting resin is a bisphenol A epoxy resin.

6. A soldering flux as described in claim 5 wherein the curing agent is one or more classes selected from the group consisting of carboxylic acid anhydrides and amines.

7. A soldering flux as described in claim 6 wherein the

organic acid contains 0.1 - 50 mass percent of at least one class of organic acid other than a carboxylic acid anhydride.

8. A soldering flux as described in claim 1 further comprising 0.1 - 10 mass percent of a thixotropic agent.

9. A soldering paste which is a mixture of a powder of a solder alloy having a melting point of at least 150°C and the flux described in claim 1.

10. A soldering paste as described in claim 9 wherein the total amount of the thermosetting resin and the curing agent in the flux is 50 - 95 mass percent.

11. A solder paste as described in claim 9 wherein the thermosetting resin in the flux is an epoxy resin.

12. A solder paste as described in claim 9 wherein the flux further contains 0.1 - 10 mass percent of a thixotropic agent.

13. A method for simultaneously achieving securing by solder and a resin in which a first member is soldered to a second member using the flux described in claim 1 and solder.

14. A method for simultaneously achieving securing by solder and a resin in which a first member is soldered to a second member using the solder paste described in claim 9.

15. A method as described in claim 13 wherein the first member is an electronic component and the second member is a substrate having a large number of electrodes and the soldering temperature is at least 150°C.

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16. A method as described in claim 14 wherein the first member is an electronic component and the second member is a substrate having a large number of electrodes and the soldering temperature is at least 150°C.